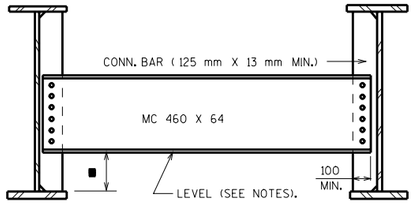
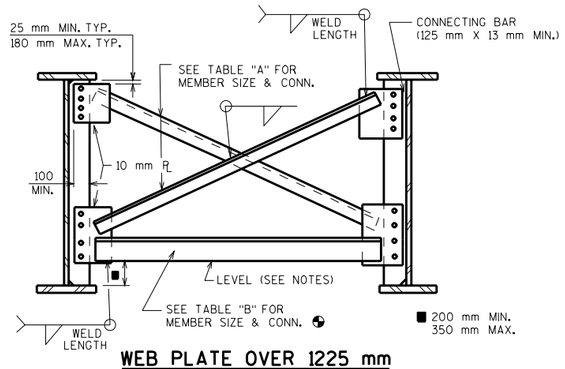


WEB PLATE ≤ 1225 mm
TYP. IN SPAN & AT PIER



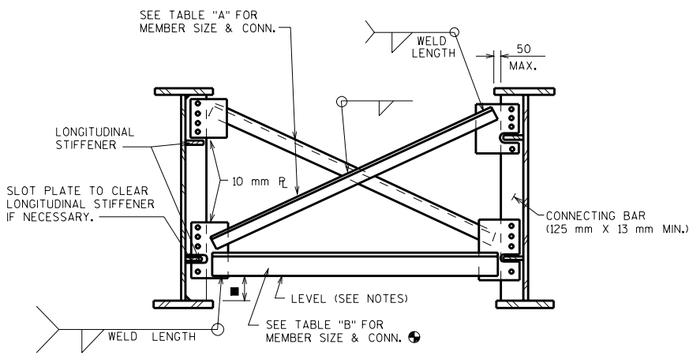
WEB PLATE OVER 1225 mm
TYP. IN SPAN & AT PIER

TABLE "A"

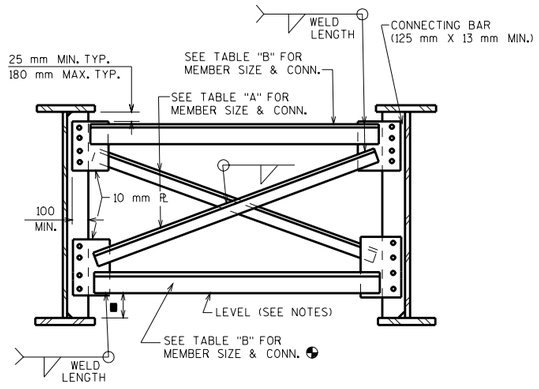
SIZE	MAX. LENGTH OF MEMBER	WELD LENGTH	NO. OF M20 BOLTS	WEIGHT PER m
L 89 X 89 X 7.9	6550	230	4	10.7 kg.
L 102 X 102 X 7.9	7620	280	4	12.2 kg.
L 127 X 127 X 7.9	9450	355	5	15.3 kg.

TABLE "B"

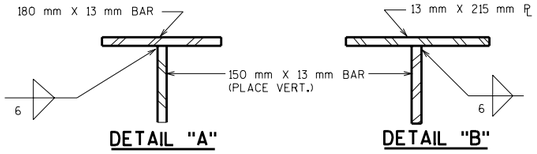
SIZE	MAX. LENGTH OF MEMBER	WELD SIZE	WELD LENGTH	NO. OF M20 BOLTS	WEIGHT PER m
L 127 X 127 X 7.9	3500	6	280	4	15.3 kg.
L 152 X 152 X 9.5	4100	8	330	6	22.2 kg.
13 mm T SECTION SEE DETAIL "A"	5330	8	355	7	24.7 kg
13 mm T SECTION SEE DETAIL "B"	6700	10	330	7	27.5 kg



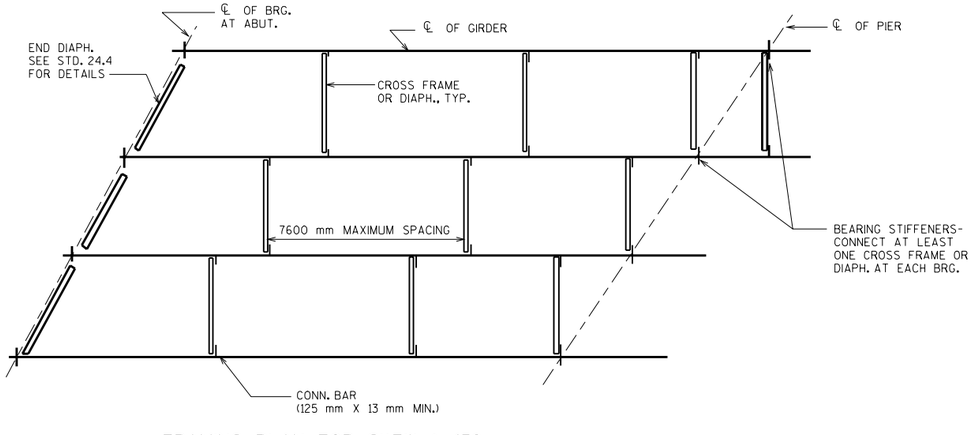
WEB PLATE OVER 1225 mm WITH LONGITUDINAL STIFFENERS
TYP. IN SPAN & AT PIER



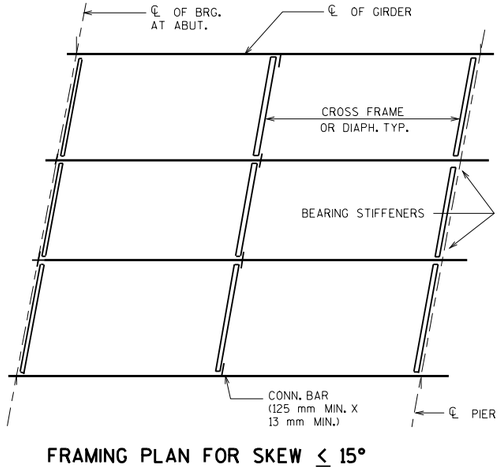
TYP. CURVED GIRDER DIAPHRAGM
ALSO USE TOP HORIZONTAL MEMBER AT DIAPHRAGMS
ADJACENT TO KINK POINTS OF KINKED GIRDERS



NOTE: WT 155 X 37 MAY BE SUBSTITUTED FOR DETAIL "A" OR "B".



FRAMING PLAN FOR SKEW > 15°



FRAMING PLAN FOR SKEW ≤ 15°

NOTES

ALL BOLTED CONNECTIONS SHALL BE FRICTION TYPE USING M20 HIGH STRENGTH BOLTS (A.S.T.M. A325M) WITH DOUBLE WASHERS.

FOR SPANS OVER 60960 mm, THE CROSS FRAMES AT THE PIERS SHALL BE DESIGNED TO RESIST THE LATERAL LOADS THAT ARE TRANSFERRED TO THE PIERS.

DIAPHRAGMS OR LOWER CROSS FRAME MEMBERS ARE SLOPED WHEN DIFFERENCE IN ADJACENT BOTTOM FLANGE ELEVATIONS EXCEEDS 150 mm. HOLD 200 mm FROM TOP OF ADJACENT FLANGES TO BOTTOM OF DIAPHRAGMS OR LOWER CROSS FRAME WHEN THESE MEMBERS ARE SLOPED.

DIAPHRAGMS OR LOWER CROSS FRAME MEMBERS THAT ARE LEVEL SHALL BE PLACED 200 mm ABOVE THE TOP OF THE HIGHER BOTTOM FLANGE OF ADJACENT GIRDERS.

HOLES IN CROSS FRAME CONNECTIONS MAY BE OVERSIZED ⌀ 24 mm DIA. IN 1 PLY.

⌖ HORIZONTAL CROSSFRAME MEMBER TO HAVE HORIZONTAL LEG TOP (AS SHOWN) WHEN NO LOWER LATERALS ARE USED. WHEN LOWER LATERALS ARE USED THE HORIZONTAL LEG SHALL BE ON THE BOTTOM, THIS IS TO ALLOW FRAMING INTO THE LOWER LATERAL GUSSET.

ALL DIMENSIONS ARE IN MILLIMETERS UNLESS SHOWN OTHERWISE.

PLATE GIRDER DIAPHRAGMS AND CROSS FRAMES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DEVELOPMENT SECTION

APPROVED: _____ DATE: 1/03